



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,949	07/29/2003	Brian Reed	ARTCP042	1786

25920 7590 11/12/2004

MARTINE & PENILLA, LLP  
710 LAKEWAY DRIVE  
SUITE 170  
SUNNYVALE, CA 94085

EXAMINER
----------

NGUYEN, HIEP

ART UNIT	PAPER NUMBER
----------	--------------

2816

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/630,949

Applicant(s)

REED ET AL.

Examiner

Hiep Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7, 8, 10-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 10-15 and 17-20 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This is responsive to the amendment filed on 08-24-04. Applicant's arguments with respect to references Wert (US Pat. 6,271,703) have been carefully considered but they are not deemed to be persuasive to overcome the references. Thus, the claims remained rejected under Wert and the rejections change because of the amendment.

#### *Claim Objections*

Claim 15 is objected to because of the following informalities: the recitation "a a p-channel transistor" on line 8 of claim 15 has a typing error. Appropriate correction is required.

#### *Specification*

The disclosure is objected to because of the following informalities: the disclosure "I/O ring" in page 8 is not relevant. It unclear as to this "'I/O ring" is the same or different than the "a Ring I/O recited in claims 1, 2 of the present application. The Applicant is requested to explain what it is and to show in the drawing this "I/O ring".

Appropriate correction is required.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and /clarification is required.

Regarding claim 1, the recitation "Ring I/O-Vth" and "Ring I/O" are indefinite because it is unclear what they are. The Applicant is requested to point out in the drawing the "Ring I/O" and to define what are the voltage of "a Ring I/O" and the "Vth" because there are many types of thresholds in a circuit.

Claims 2, 3 and 7 are indefinite because of the technical deficiencies of claim 1.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Wert (US Pat. 6,271,703).

Regarding claims 1, 2 and 3, figure 2 of Wert shows a “method” for protecting an input buffer, comprising the operations of:

lowering a current (transistor 220d is off) from a p-supply (node 7) to an input buffer (220c, 220b) when an input voltage to the input buffer is tolerant HIGH, wherein the p-supply is a voltage supplied to a p-channel transistor (220c) in the input buffer;

setting the p-supply to a particular voltage when the input voltage to the input buffer is tolerant HIGH, the particular voltage at node being at a specific value ( $V_{dd}-2V_{th}$ ) such that input transistors within the input buffer do not experience overstress voltages (col. 3, lines 45-59). The overstress voltages have values higher than an internal voltage of a Ring I/O wherein the input buffer is located. Because transistors (220c) and (220d) are turned off, there is no current flowing through the input buffer. The p-supply p-channel transistor is transistor (220d). When a high voltage is applied to the input (200), the p-supply p-channel (220d) is turned OFF and the p-supply voltage at node (7) has a value of  $V_{dd}$  minus a threshold value (col. 3, lines 55-60). When the input voltage is low, transistors (220c) and (220e) are switched ON and the p-supply voltage at node (7) has a value of  $V_{dd}$  (col. 3, lines 61-65).

Regarding claim 7, the recitation “ wherein the voltage tolerant input buffer is implemented utilizing an I/O generator is merely intended use thus, they do not further limit the limitations of the claims. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte

Art Unit: 2816

Masham, 2 USPQ F.2d 1647 (1987). Therefore, these limitations have not been given patentable weight.

### *Allowable Subject Matter*

Claims 8, 10-15 and 17-20 are allowed.

Claims 8, 10-15 and 17-20 are allowed because the prior art of records (US Pat. 6,271,703) fails to teach or fairly suggest a voltage tolerant circuit for protecting an input buffer comprising: a p-channel transistor having a first terminal coupled the pad I/O, a gate coupled to Ring Vpp, and a second terminal coupled to a first terminal of an n-channel transistor as called for in claim 8 and 15.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hiep Nguyen

11-07-04



TUANT.LAM  
PRIMARY EXAMINER